

REMARKS

This Amendment And Request for Reconsideration is filed in response to the Office Action mailed on 26 March 2008 for the subject patent application.

In the present amendment, claims 1, 15, 21 and 28 have been amended; no claims have been added or canceled. The Applicants respectfully submit that no new matter has been entered by such amendment. The amendments are fully supported by the application as originally filed. The Applicants respectfully request entry of the amendment and reconsideration of the claims as amended.

In the Office Action of 26 March 2008, the Examiner rejected claims 1, 3-4, 6-21, 23-28, and 30-34 of the present application under 35 U.S.C. § 102(b) based on U.S. Patent Application Publication No. US20020098849 A1 to Bloebaum, L. Scott et al. In addition, the Examiner rejected claims 2, 22, and 29 under 35 U.S.C. § 103(a) over Bloebaum in view of U.S. Patent No. 5,736,962 to Tendler, Robert K. In response, the Applicants respectfully disagree with the Examiner's rejections and submit that all claims as amended are allowable over the prior art of record for at least the following reasons.

For proper rejections under 35 U.S.C. § 102(b) and 103(a), the prior art individually or in combination must teach or suggest each and every claim limitation. In the present case, the relied upon art fails to teach or suggest each and every claim limitation.

I. THE INVENTION OF CLAIMS 1-4 and 6-20. According to the present invention, a technique to facilitate the determination of Global Positioning System (GPS) location information *without disrupting voice communications of a voice call* involving a mobile station is provided as defined in claims 1-4 and 6-20. For reduced cost, the inventive technique utilizes the same wireless transceiver of the mobile station for both voice call communications via a wireless communication network and GPS fix communications via

a GPS system. Although the same wireless transceiver is utilized to facilitate the determination of GPS location information, voice communications of the voice call are not adversely disrupted according to the present invention.

In claims 1-4 and 6-20, the claims are drafted such that the recited acts of "deriving," "tuning," and "causing a GPS fix," "retuning," etc. are *indented to the right* of the "in response to the receiving of the voice call request" recitation. Thus, the claims have been formatted and otherwise fashioned so that the acts of "deriving," "tuning," and "causing a GPS fix," "retuning," etc. *structurally* fall under the response to the voice call request. Proper interpretation thus requires that the acts of "deriving," "tuning," and "causing a GPS fix," "retuning," etc. are performed in response to the receiving of the voice call request.

Thus, in the claimed technique, GPS navigational-type data is received through the wireless transceiver and stored in memory. Sometime during operation, a voice call request for establishing a voice call by an end user is received through a user interface of the mobile station. In response to the receiving of the voice call request, the following actions are taken. GPS assistance data is derived based on the stored GPS navigational-type data that was received and stored prior to the voice call request. The wireless transceiver of the mobile station is tuned away from the wireless communication network to a GPS frequency to receive signals from the GPS system through the wireless transceiver, and a GPS fix is performed with the signals from the GPS system through the wireless transceiver using the GPS assistance data, to thereby obtain GPS measurement data. After the GPS fix is performed, the wireless transceiver is retuned to signals of the wireless communication network, and the voice call for the voice call request is established and maintained for the mobile station through the same wireless communication network and with the same wireless transceiver used to receive the GPS navigational-type data. During the voice call, the GPS measurement data and a request for calculating a location of the mobile station is transmitted to a location server

in the wireless communication network for calculating the location of the mobile station based on the GPS measurement data.

Thus, according to the present invention, the mobile station utilizes the same wireless transceiver (e.g. the same CDMA transceiver) for both voice calls and GPS fix communications. This reduces the cost to manufacture the mobile station. In response to the voice call request, the mobile station operates to tune its wireless transceiver to a GPS frequency of the GPS system for the GPS fix prior to establishing the voice call, and subsequent retune this wireless transceiver back to the wireless network for the voice call (e.g. claims 1-4 and 6-20).

The Examiner relies upon U.S. Patent Application Publication US2002/0098849 A1 to Bloebaum for novelty rejections of most of the claims. However, Bloebaum does not teach or suggest each and every limitation of the claims.

For one, Bloebaum does not teach the use of the same wireless transceiver for both voice call communications via a wireless communication network and GPS fix communications with a GPS system. The wireless receiver/transceiver as claimed is tuned to a GPS frequency to receive signals from a GPS system. In contrast, the cell phones in Bloebaum utilize a special GPS receiver which is tuned to a GPS frequency to receive signals from a GPS system, which is not the same receiver of the cell phone that is used for voice call communications.

Secondly, the GPS position determination actions taken in Bloebaum are not performed "in response to the receiving of the voice call request". Again, proper interpretation of claims 21-34 requires that the acts of "deriving," "tuning," and "causing a GPS fix," "retuning," etc. are performed in response to the receiving of the voice call request. *In the present claims, the GPS fix is performed by the mobile station in response to the receiving of the voice call request, but prior to establishing of the voice call corresponding to the voice call request.* Bloebaum does not teach or suggest the same, and the Examiner has not provided any support for any such teaching or suggestion in the relied upon prior art.

For these reasons alone, the Examiner's rejections of claims 1-20 fail. Claims 1-20 as amended are novel and non-obvious over the prior art of record.

II. THE INVENTION OF CLAIMS 21-34. In addition, an alternative inventive technique to facilitate the determination of GPS location information *without disrupting voice communications of a voice call* involving the mobile station is also provided as defined in claims 21-34. Again, for reduced cost, the inventive technique utilizes the same wireless transceiver for both voice call communications via a wireless communication network and GPS fix communications via a GPS system. Although the same wireless transceiver is utilized to facilitate the determination of GPS location information, voice communications of the voice call are not adversely disrupted according to the present invention.

In this alternative technique, a trigger signal indicative of a request to terminate a voice call for ending voice communications of the voice call is identified through a user interface of the mobile station. By a voice call being "*terminated*," it is meant that the voice call that is currently being maintained is to be *ended*. This request to terminate the voice call may be identified through use of an END key of the user interface, for example. In response to identifying the trigger signal indicative of the request to terminate the voice call, the following actions are taken. The wireless transceiver is tuned away from the wireless communication network to a GPS frequency to receive signals from the GPS system through the wireless transceiver, and a GPS fix is performed with the signals from the GPS system using GPS assistance data to thereby obtain GPS measurement data. After the GPS fix, the wireless transceiver is retuned to signals of the wireless communication network, and the GPS measurement data and a request for calculating a location of the mobile station is transmitted through the wireless transceiver to a location server in the wireless communication network for calculating the location of the mobile station based on the GPS measurement data. Thereafter, the

voice call is terminated responsive to the trigger signal indicative of the request to terminate the voice call.

In the rejection of these claims, the Examiner states on page 6 of the Office Action that

Claims 15, 21, 28, are the method, apparatus, claims, corresponding to method claim 1 respectively, and rejected under the same rational set forth in connection with the rejection of claim 1 respectively, above.

The Applicants respectfully disagree with the Examiner's assessment above. Claims 21 and 28 do not correspond to the limitations of claim 1, at least because method claim 1 does not recite the step of "identifying, through a user interface of the mobile station, a trigger signal indicative of a request to terminate the voice call for ending the voice communications of the voice call" and actions which occur in response thereto. Therefore, the Examiner has failed to identify the limitations of claims 21-34 in the prior art entirely.

The deficiency of the prior art and the Examiner's rejections are more apparent with respect to the Examiner's rejections of claims 27 and 34, which recite that "wherein the trigger signal is based on an actuation of an END key." In these rejections, the Examiner states on page 6 of the Office Action that

As per claims 23, 27, 30, 34, Bloebaum teaches:

The method of claim 21, wherein the trigger signal is based on an actuation of an END key. (i.e. 0028).

Referencing paragraph 0028 of Bloebaum, however, it is stated that:

Alternatively, in systems where the locations of base stations 40 are transmitted by the system or are otherwise known, but the timing of their transmissions is unknown, cell phones 20 with GPS receivers can compute the transmission times from different base stations 40 and share this information with cell phones 20 that do not have GPS receivers, so that these cell phones 20 may compute their positions from signals in the terrestrial system. Cell phones 20 with GPS receivers can compute base station transmission times if the base station locations and the location of the cell phone itself is known.

As apparent from the above, there is no teaching or suggestion of the use of an END key in paragraph 0028 of Bloebaum. Bloebaum do not teach or suggest the use the claimed actions which occur in response to "identifying, through a user interface of the mobile station, a trigger signal indicative of a request to terminate the voice call for ending the voice communications of the voice call" whether or not "the trigger signal is based on an actuation of an END key."

For these reasons alone, the Examiner's rejections of claims 21-34 fail. Claims 21-34 as amended are novel and non-obvious over the prior art of record.

Again, the Applicants respectfully request entry of the amendment and reconsideration of the claims as amended. Based on the above, the Applicants respectfully request the Examiner to withdraw all claim rejections and allow the application as is appropriate.

Thank you. The Examiner is welcome to contact the undersigned if necessary to expedite prosecution of the present application.

Respectfully submitted,

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